

IN THE CLAIMS:

Please amend the claims, as follows:

1. (Currently Amended) Data storage format stored on a computer-readable medium, for storing medical image topography data associated with an object, said data storage format for facilitating fusion of the medical image topography data to other medical image data, said data storage format comprising:

a first section for storing medical image topography data in relation to a reference entity with respect to which the medical image topography data is determined;

a second section for storing information concerning the reference entity;

a third section for storing information concerning a topography direction along which the medical image topography data is measured or calculated with respect to the reference entity.

2. (Original) The data storage format described in claim 1, wherein the topography data is defined in N-dimensional space.

3. (Original) The data storage format described in claim 1, wherein the information concerning the reference entity is defined in N-dimensional space.

4. (Cancelled)

5. (Original) The data storage format described in claim 1, wherein the reference entity is described as a function in N-dimensional space.

6. (Original) The data storage format described in claim 1, wherein the reference entity is a point in space.

7. (Original) The data storage format described in claim 1, wherein the reference entity is a line.

8. (Original) The data storage format described in claim 1, wherein the topography data, the reference entity, and the topography direction are described in a Cartesian coordinate system.

9. (Original) The data storage format described in claim 1, wherein the topography data, the reference entity, and the topography direction are described in a non-Cartesian coordinate system.

10. (Previously Presented) The data storage format described in claim 1, wherein position of the reference entity and the topography direction with respect to a global coordinate system are predefined.

11. (Cancelled)

12. (Previously Presented) The data storage format described in claim 10, wherein the reference entity and the topography direction are registered with respect to a first coordinate system, the first coordinate system being registered to the global coordinate system.

13. (Original) The data storage format described in claim 12, wherein a transformation is performed between the first coordinate system and a second coordinate system to which a three dimensional image is registered, the second coordinate system being independent from the first coordinate system and being registered to the global coordinate system.

14. (Original) The data storage format described in claim 13, wherein the three dimensional image is fused to the topography data.

15. (Currently Amended) Method for storing medical image topography data on a computer-readable medium in a data storage format, wherein the data storage format facilitates fusion of the medical image topography data to other medical image data, said method comprising;

storing medical image topography data in a first section of the data storage format,

determining a reference entity with respect to which the medical image topography data is measured or calculated and storing information concerning the reference entity in a second section of the data storage format;

obtaining information regarding a topography direction along which the medical image topography data is measured or calculated with respect to the reference entity, and storing the information in a third section of the data storage format.

16. (Currently Amended) Method for using medical image topography data stored in a data storage format including a first section for storing medical image topography data, a second section for storing information concerning a reference entity with respect to which the medical image topography data is determined, and a third section for storing information concerning a topography direction along which the medical image topography data is measured or calculated with respect to the reference entity, comprising:

utilizing the medical image topography data stored in a first section of the data storage format for computerized data-processing applications that do not involve fusion of the medical image topography data to other medical image data;

utilizing information stored in all three sections of the data storage format for computerized data-processing applications that involve fusion of the medical image topography data to other medical image data.

17. (Original) The method described in claim 16, wherein data stored in a first section of the data storage format is used to register and fuse the topography data to a three-dimensional image.